

C&RP 834 - DECISION ANALYSIS IN URBAN AND REGIONAL PLANNING

Time: Tuesday, 6:30-8:30 p.m.
Place: 274 Brown Hall
Credit: 3 hours
Call No.: 04175-0
Instructor: Jean-Michel Guldmann

COURSE OBJECTIVES

The purpose of the course is to introduce students to decision-making techniques involving uncertainty, conflict, and a multiplicity of objectives, such as: (1) decision tables, (2) decision trees and Bayesian analysis, (3) zero and non-zero sum cooperative and non-cooperative games, (4) discrete multi-criteria evaluation, and (5) multi-objective programming. Examples of applications of these techniques will be reviewed, including land-use planning, location choice, water resources, environmental pollution, and energy policy issues.

COURSE OUTLINE

1. Decision Analysis: Basic Concepts and Techniques
2. Decision Analysis: Applications
3. Game Theory: Basic Concepts and Techniques
4. Game Theory: Applications
5. Discrete Multicriteria Evaluation Techniques
6. Multiobjective Programming Techniques

COURSE ASSIGNMENTS

1. Homeworks will provide the student an opportunity to apply the techniques to small problems.
2. There will be an exam at the end of the quarter.

GRADING

Homeworks	50%
Exam	50%

NOTES

1. Most of the materials in the reading list are available at the OSU Libraries. Those which are not will be provided by the instructor on a reserve list in the Engineering Library.
2. The meaning of grades and all official marks of the University are explained in the University Bylaws as revised on June 7, 1973, in Sections 35.00, 37.00, and 47.00. All students are held responsible for knowing and abiding by the Department's policies on plagiarism and the University's policies on academic

misconduct. These have been distributed to all C&RP students, but if you have not obtained your personal copies, obtain them from the Department secretary.